

Claim Amendments

Please amend claims 1, 2, 5, 9, 13, 17, 19, and 20 as follows.

Please cancel claims 4, 6-8, 12, and 14-16.

Please add new claims 21-25 as follows.

1. (currently amended) A primer tank for generating a primer vapor with reduced primer droplet formation[[,]] comprising:

a tank body for containing a liquid primer to form an exposed surface of said liquid primer comprising a liquid vapor interface; and,

a nozzle assembly ~~having~~ comprising a plurality of ~~nozzle openings provided in said tank body,~~ said plurality of openings disposed above said exposed surface and arranged for ejecting impacting a plurality of gas streams against onto said exposed surface the liquid primer to form said primer vapor in a vapor collection space above said liquid vapor interface.

2. (currently amended) The primer tank of claim 1 wherein said nozzle assembly comprises:

a gas inlet pipe for receiving a primary gas stream and a nozzle plate provided in downstream fluid communication with said gas inlet pipe; [[,and]]

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wherein said nozzle plate comprises a plurality of nozzle openings ~~extends through said nozzle plate for dividing said primary stream into said plurality of gas streams.~~

3. (original) The primer tank of claim 1 further comprising a level sensor provided in said tank body for sensing a level of the liquid primer in said tank body.

4. (cancelled)

5. (currently amended) The primer tank of claim 1 further comprising a vapor outlet ~~tube provided in fluid communication with said tank body~~ for distributing the primer vapor from said ~~tank body~~ vapor collection space to a downstream process.

6. - 8. (cancelled)

9. (currently amended) A primer tank for generating a primer vapor, comprising:

a tank body for containing a liquid primer; and,

a nozzle assembly provided in said tank body, said nozzle assembly having a gas inlet pipe for receiving a primary gas stream; a housing having a housing interior provided in fluid communication with said gas inlet pipe; and a nozzle plate in downstream fluid communication with said housing, said nozzle

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plate having plurality of nozzle openings ~~carried by said housing~~ for receiving the primary gas stream and ejecting a plurality of secondary gas streams onto an exposed surface of said ~~against the~~ liquid primer to create a primer vapor in a vapor collection space above said exposed surface.

10. (original) The primer tank of claim 9 further comprising a level sensor provided in said tank body for sensing a level of the liquid primer in said tank body.

11. (original) The primer tank of claim 9 further comprising a vapor outlet tube provided in fluid communication with said tank body for distributing the primer vapor from said tank body.

12. (cancelled)

13. (currently amended) The primer tank of claim 9 wherein said plurality of nozzle openings are arranged in a plurality of radially-extending rows ~~[[in]]~~ on a plate surface of said nozzle plate, said plate surface arranged above said exposed surface.

14. - 16. (cancelled)

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17. (currently amended) A method of generating a primer vapor from a liquid primer to reduce primer vapor droplet formation

[[,]] comprising the steps of:

providing a primer tank having a tank body;

providing the liquid primer in said tank body to form an exposed surface of said liquid primer, said exposed surface comprising a liquid vapor interface; [[and]]

~~directing impacting~~ an inert gas ~~against the liquid primer comprising~~ [[in]] a plurality of gas streams onto said exposed surface to form a vapor above said liquid vapor interface, said vapor comprising said liquid primer and said inert gas; and,

transferring said vapor to a downstream process.

18. (original) The method of claim 17 wherein said liquid primer comprises hexamethyldisilazone.

19. (currently amended) The method of claim 17 wherein ~~each of~~ said plurality of gas streams ~~has a pressure of about 0.75 Kpa~~ are impacted onto said exposed surface at subatmospheric pressures.

20. (currently amended) The method of claim 17 wherein [[said]] the step of ~~directing an inert gas against the liquid primer in a plurality of gas streams~~ comprises:

~~the steps of~~ providing a primary gas stream[[,]];

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dividing said primary gas stream into said plurality of gas streams according to a plurality of openings disposed above said exposed surface; [[,]] and,

~~directing said plurality of gas streams against the liquid~~
~~primer~~ collecting said vapor in a vapor collection space disposed above the vapor liquid interface.

21. (new) The method of claim 21, wherein said plurality of openings is disposed in a plate surface arranged above said exposed surface.

22. (new) The method of claim 17, wherein said inert gas comprises nitrogen.

23. (new) The method of claim 17, wherein said downstream process comprises treating a semiconductor process wafer with the primer vapor, said downstream process at a relatively lower pressure than the vapor collection space.

24. (new) The primer tank of claim 5, wherein said downstream process is maintained at a lower pressure relative to said vapor collection space.

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25. (new) The primer tank of claim 2 wherein said plurality of nozzle openings are arranged in a plurality of radially-extending rows on said nozzle pate surface.